

REMARKS

Summary of Claim Status

Claims 1-9 and 19-26 are pending in the present application after entry of the present amendments. After entry of the amendment set forth in Applicant's response to the Final Office Action filed on February 4, 2004, Claim 7 is indicated as allowed. Applicant thanks the Examiner for this acknowledgement of patentable subject matter.

Applicant requests the favorable reconsideration of the claims and withdrawal of the pending rejections, in view of the present amendments and in light of the following discussion.

Rejections Under 35 U.S.C. § 102

Claims 1-6, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Honda et al., U.S. Patent No. 5,497,109 ("Honda"). Applicant respectfully disagrees and traverses the rejection with regard to all claims.

Applicant resubmits the arguments made with respect to Honda, which were not addressed by the Examiner, previously presented in the responses filed on February 4, 2004 and on September 15, 2003. Applicant respectfully requests the Examiner consider these arguments, which are believed to overcome the present rejections.

In order to avoid duplicating the arguments from the prior responses, Applicant has briefly summarized the arguments below.

Claim 1

Applicant respectfully submits that the Office Action does not even allege, much less prove, that Honda discloses the claimed steps of "instantiating a first delay element on a programmable logic device . . . using a first programming sequence" and "instantiating a second delay element on the [programmable logic] device using a second programming sequence." In fact, Honda does not teach or disclose a

programmable logic device at all, and therefore cannot possibly teach either of these two steps.

Honda does not even mention, much less teach, a programmable logic device, instantiating on a programmable logic device, or using a programming sequence, all as claimed by Applicant. In fact, nowhere in Honda are the words "programmable logic device," "instantiating," or "programming," or any similar words or concepts even used. Therefore, Honda cannot possibly teach or disclose the invention claimed by Applicant.

Furthermore, the Examiner has not identified any elements in Honda corresponding to the first, second, and third logic blocks claimed by Applicant, and Applicant submits that no such correspondence can be made. Note that Applicant does not rely on the preamble to the claim, but instead relies on the plain meaning of the language used in the elements of the claim, since each of the first, second, and third logic blocks is specifically recited in the claim elements of Claim 1. However, to clarify the language of Claim 1, Applicant has voluntarily amended Claim 1 (already believed to be allowable based on the forgoing remarks) to incorporate language from the preamble into the body of the claim. This amendment merely makes explicit what was originally implicit in the claim, and therefore does not relate to patentability or prior art.

For all of the reasons set forth above, Applicant believes that Claim 1 is allowable over the present rejection and respectfully requests the Examiner's reconsideration and withdrawal thereof.

Claims 2-6, 8 and 9

Each of Claims 2-6, 8 and 9 depends, either directly or indirectly, from Claim 1, and thus includes all of the limitations of Claim 1. Therefore, for at least the reasons presented above with respect to Claim 1, Applicant believes Claims 2-6, 8 and 9 are also allowable and respectfully requests allowance of such claims.

Wang et al.

Claims 19-26 are rejected under 35 U.S.C. § 102(e) as being anticipated by Wang et al., U.S. Patent No. 6,617,884 ("Wang"). Applicant respectfully traverses this rejection with respect to all claims.

Claim 19

The Examiner cites Col. 7, lines 1-5 of Wang in alleging anticipation of Claim 19. Applicants, however, respectfully submit that Wang fails to teach the invention as claimed. In fact, the cited portion of Wang merely discloses that delay cells may be implemented using buffers or inverters connected in a ring oscillator. In Wang, the delay cells are used as a variable controlled oscillator in a phased locked loop (see, e.g., Figure 5 of Wang), and nowhere is it taught that the ring oscillator of Wang has a first branch connected to the input terminal of a first logic block, and an output terminal of the first logic block connected to the input terminal of a second logic block, as claimed by Applicant. Similarly, Wang does not teach or disclose a second ring oscillator in which the third destination branch is connected to the input terminal of the third logic block and the output terminal of the third logic block is connected to the input terminal of the second logic block, as recited in Claim 19. In fact, Wang does not disclose or teach any details about components and connections in the ring oscillator at all.

The Examiner also cites Figures 2 and 3 in alleging anticipation. Those figures, however, do not appear to illustrate oscillators of any kind, much less the ring oscillators as claimed by Applicants.

Furthermore, Claim 19 recites elements including first and third destination branches, and first, second and third logic blocks. The Examiner has not alleged any teaching in Wang corresponding to such elements, and Applicant can find no such correspondence. Since Wang does not teach or even suggest any of these claimed limitations, it would be impossible for Wang

to disclose the invention as claimed by Applicant. Note that Applicant does not rely on the preamble to the claim, but instead relies on the plain meaning of the language used in the elements of the claim, since each of the first and third destination branches, and first, second, and third logic blocks is specifically recited in the claim elements of Claim 19. However, to clarify the language of Claim 19, Applicant has voluntarily amended Claim 19 (already believed to be allowable based on the forgoing remarks) to incorporate language from the preamble into the body of the claim. This amendment merely makes explicit what was originally implicit in the claim, and thus does not relate to patentability or prior art.

Therefore, Applicant believes that Claim 19 is allowable over the present rejection and respectfully requests the Examiner's reconsideration and withdrawal thereof.

Claims 20-26

Each of Claims 20-26 depends, either directly or indirectly, from Claim 19, and thus includes all of the limitations of Claim 19. Therefore, for at least the reasons presented above with respect to Claim 19, Applicant believes Claims 20-26 are also allowable and respectfully requests allowance of such claims.

Other Amendments

Notwithstanding the forgoing arguments, Applicant has voluntarily amended Claims 1, 6, 19 and 23 to point out more particularly and claim more distinctly the subject matter Applicant regards as his invention.

In particular, amended Claim 1 recites an additional step of "measuring signal skew on the programmable logic device through the signal tree based on a difference in delay between the first and second delay elements." Honda does not disclose or even suggest such a measuring step. Therefore, this amendment further distinguishes over Honda. Applicant has made an amendment to Claim 6, which depends from Claim 1, consistent

with the amendment to Claim 1. The amendments to Claims 1 and 6 are fully supported by the specification as filed, for example by paragraph [0030], and therefore no new matter has been introduced by the amendments.

Amended Claim 19 recites an additional step of "measuring clock skew on the programmable logic device through the clock-distribution network based on a difference between oscillation period of the first ring oscillator and oscillation period of the second ring oscillator." Wang does not disclose or even suggest such a measuring step. Therefore, this amendment further distinguishes over Wang. Applicant has made an amendment to Claim 23, which depends from Claim 19, consistent with the amendment to Claim 19. The amendments to Claims 19 and 23 are fully supported by the specification as filed, for example by paragraph [0030], and therefore no new matter has been introduced by the amendments.

Applicant respectfully requests entry of the above amendments.

Request for Non-Final Action

If an action other than allowance of the pending claims is to be made, Applicant respectfully requests that the next action be a non-final action. Applicant repeats the argument, which was not addressed or considered by the Examiner, previously presented in the response filed on February 4, 2004. The previously presented argument is summarized below.

In particular, Applicant submits the outstanding Office Action is not in compliance with 37 C.F.R. 1.104(c)(2), which states:

When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

The pertinence of Honda should be explained since the Examiner has not identified any particular part of Honda that corresponds to Applicant's claim elements, including the claimed steps of:

instantiating a first delay element on the device using a first programming sequence, and
instantiating a second delay element on the device using a second programming sequence.

Furthermore, the Examiner has not identified any portion of Honda that corresponds to the claimed steps of:

connecting the output terminal of the first logic block to the input terminal of the second logic block, and
connecting the output terminal of the third logic block to the input terminal of the second logic block.

Similarly, the pertinence of Wang should be explained since the Examiner has not identified any particular part of Wang that corresponds to Applicant's claim elements, including the claimed:

first and second ring oscillators,
first and third destination branches, and
first, second and third logic blocks.

Applicant respectfully submits that, in fact, such identifications in Honda and Wang cannot successfully be made. Therefore, the absence of such identifications renders it necessary to explain the pertinence of both the Honda and the Wang references.

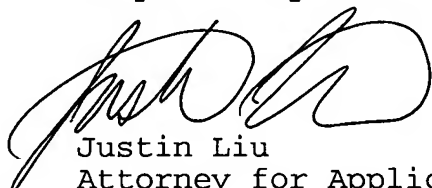
Therefore, Applicant hereby requests a new non-final action if the pending claims are not allowed.

Conclusion

Applicant has made additional minor amendments to Claims 1, 6, 7, 19, and 23 to remove unnecessary typographical formatting. Such amendments merely relate to matters of form, and therefore do not relate to patentability or prior art. Therefore, Applicant respectfully requests entry of such amendments.

No new matter has been introduced by any of the above amendments. In light of the above amendments and remarks, Applicant believes that Claims 1-9, and 19-26 are in condition for allowance, and allowance of the application is therefore requested. If action other than allowance is contemplated by the Examiner, the Examiner is respectfully requested to telephone Applicant's attorney, Justin Liu, at 408-879-4641.

Respectfully submitted,

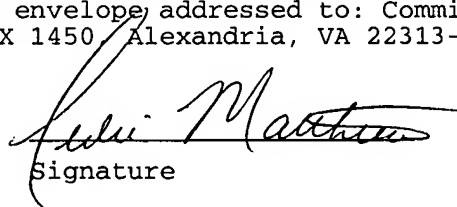


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. BOX 1450, Alexandria, VA 22313-1450, on April 12, 2004.

Julie Matthews

Name


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